

Special cases in Assignment problem:

① Maximization Case in Assignment problem:

In some cases, the pay off elements of the assignment problem may represent revenue or profits instead of costs so that the objective will be to maximize the total revenue or profit. The Hungarian method explained earlier can also be used for maximization case. The problem of maximization can be converted into a minimization case ~~the~~ by selecting the largest element among all elements of the profit matrix and then subtracting it from all other elements in the matrix. we can then proceed as usual and obtain the optimum solution by adding the original values of these ~~proceed~~ ~~at usual~~ ~~ob~~ cell to which the assignments have been made.

Prohibited Assignment: Sometimes due to certain reason, a particular resource (say a man or machine) can not be assigned to perform a particular activity (say territory or Job). The cost of performing that particular activity by a particular ~~resource~~ resource is considered to be very large (written as M or ∞) so as to prohibit the entry of this pair of resource - activity into the final solution.

Transportation problem:

The transportation is one of the subclasses of L.P.P. in which the objective function is to transport various quantities of a single homogeneous commodity, that are initially stored at various origins, to different destinations in such a way that the total transportation cost is minimum. To achieve this objective we must know the amount & location of available supplies and the quantities demanded. In addition, we must know the costs that result from transporting one unit of commodity from various origin to various destination.

Degeneracy in TP:

In transportation ~~the~~ schedule, m & n represent the number of rows & column resp. Then a basic feasible solution involving exactly $(m+n-1)$ positive variables is known as non-degenerate basic feasible solution. otherwise it is said to be ~~for~~ degenerate feasible solution.